

Appl. No. 09/471,659
Amdt. dated 12/31/2003
Reply to Office action of 10/02/2003

REMARKS/ARGUMENTS

This Response is intended to be a complete response to the Office action of October 2, 2003 and the case is believed to be in condition for allowance. Accordingly, reconsideration is respectfully requested.

Status of Claims

Claims 1-35 are pending in the application. Claims 14-17, 21-26, 28, 29 and 31-35 stand allowed. Claims 2-13, 18-20 and 30 were rejected in the Office action. Applicants traverse the rejection.

Applicants thank the Examiner for withdrawing the finality of the Office action mailed on 7/14/2003.

35 USC 103

Claims 8, 10, 12, 13, 18 and 19 were rejected under 35 USC 103(a) as unpatentable over Gardener et al (U.S. Patent Number 5,365,229) in view of Gaikwad et al. (U.S. Patent No. 6,292,559). Applicants traverse the rejection.

Claims 2-7, 9 11, 20 and 30 were rejected under 35 USC 103(a) as unpatentable over Gardener et al (U.S. Patent Number 5,365,229) in view of Gaikwad et al. (U.S. Patent No. 6,292,559) in further view of Baird et al. (U.S. Patent No. 6,469,636). Applicants traverse the rejection.

The Examiner has failed to establish a *prima facie* case of obviousness. Therefore, the rejection should be withdrawn and the claims allowed.

"To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one

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of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations." MPEP 2143.

Applicants submit that these three criteria have not been satisfied in the rejection of the claims.

There is no "suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings." Claim 8 recites "A telemetry system for transmitting well-logging data from at least one downhole tool to a surface data acquisition system, the at least one down hole tool having a first tool data input/output interface, the telemetry system comprising: a. a downhole telemetry cartridge ... comprising: a transmitter connected to the second tool data input/output interface, and having a logic operable to cause transmission of the bitstream as analog signals on a plurality of carrier frequencies" As the Examiner, observes Gardner does not teach or suggest that element and the Examiner ("Gardener (sic) et al. does not disclose the apparatus having logic operable to cause transmission of the bitstream as analog signals on a plurality of carrier frequencies and logic operable to receive the analog signals on the plurality of carrier frequencies" (Office Action, Page 3)). The Examiner has erroneously suggested that Gaikwad supplies this missing teaching and suggests (again erroneously) that Gaikwad "[states] the DMT transmission method could be used, or even potentially used in well-logging telemetry systems" (Office Action, Page 4). To support that assertion the Examiner points to Gaikwad's Abstract and Column 72, lines 8-20).

Gaikwad teaches a method (referred below as *Gaikwad's Method*) that may be used in "communicating data when the channel is subject to interference from one or more other communications channels" (Gaikwad, Abstract, Lines 14-18). Gaikwad further teaches that "[the] present invention may be used in digital subscriber-line

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applications, such as well-logging and in systems involving multiple interfering radio transmitters" (Gaikwad, Abstract, Lines 18-22). Thus, all that Gaikwad is saying here is that his method can be used in both DMT (or DSL) and in well-logging. He does not say that DMT can be used in well-logging.

The distinction may seem subtle, however, there is a huge difference. Applicants invite the Examiner to consider the following analogy involving pancakes, Eggbeaters, and mayonnaise. The prior art pancakes of course teach how to make pancakes with eggs. Then an inventor comes along and invents Eggbeaters, non-cholesterol egg substitutes. In the disclosure for the Eggbeaters the inventor makes the statements that Eggbeaters can be used as scrambled eggs, in mayonnaise, and in pancakes.

After the Eggbeaters patent, a second inventor invents how to make pancakes from mayonnaise ("Mayocakes"). There is no suggestion in Eggbeaters to use mayonnaise in pancakes and, frankly, the likelihood of success seems minimal. Therefore, even though, the Eggbeaters patent discussed mayonnaise and pancakes in the same disclosure, the Mayocakes would be patentable.

The present case is exactly the same. Just because Gaikwad teaches that the *Gaikwad method* (Eggbeaters) can be used with DMT (pancakes) and well-logging (mayonnaise), one cannot infer that Gaikwad does teaches or suggests using DMT in well-logging (Mayocakes). Therefore, the first criterion has not been met.

The second criterion for a *prima facie* case of obviousness is that there must be some reasonable expectation of success. To Applicants' knowledge there is no reference that suggests that DMT apparatus can be used in the operating conditions of well-logging. Well-logging operations go deep into the subsurface of the earth where temperatures and pressures are extremely high. Furthermore, well-logging operations can often far exceed the design specifications for DMT in terms of cable-length (telephony is usually limited to 18,000 feet whereas wireline well-logging operations can be as long as 30,000 feet or

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longer). Because of the lack of known DMT applications in these conditions and cable-lengths, there would not be a reasonable expectation of success.

For the foregoing reasons, the Examiner has failed to establish a *prima facie* case of obviousness with respect to Claim 8. The other independent claims recite analogous limitations to the one cited from Claim 8 above. Accordingly, the argument in support of Claim 8 applies to the other independent claims as well. These, claims are therefore also patentable over the combination of Gardner and Gaikwad, whether taken singly or in combination.

Claims 9 and 11 were rejected under 35 USC 103(a) under a combination of Gardner, Gaikwad, and Baird. The Examiner has not used Baird to overcome the deficiency to the *prima facie* case based on the Gardner/Gaikwad combination discussed above in support of Claim 8. Baird does not teach or suggest anything that would overcome that deficiency to the *prima facie* case. Accordingly, the combination of Gardner, Gaikwad and Baird does not establish a *prima facie* case for obviousness for the same reasons as given in support of Claim 8.

All dependent claims depend from the independent claims discussed above, incorporate all limitations of their respective base claims, provide further unique and non-obvious combinations, and are therefore patentable for the reasons given in support of the independent claims and by virtue of such further combinations.

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CONCLUSION

It is submitted that all the claims now in the application are allowable. Applicants respectfully request reconsideration of the application and claims and its early allowance.

No fees are believed to be due in connection with this response. If Applicant is in error the Commissioner is hereby authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account 19-0597.

Respectfully submitted,



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Date: December 31, 2003

Enclosures:

1. Facsimile Transmittal Sheet (1 page)
2. Transmittal Form (1 page)
3. Certificate of Transmission by Facsimile (1 page)
4. Amendment Transmittal Letter in duplicate (2 pages)

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